
1. GCD

Program Name: GCD.java

Input File: gcd.dat

The greatest common divisor of two integers is the largest integer that evenly divides both of them. For example, $\text{gcd}(6, 10)$ is 2. More generally, the greatest common divisor of N integers is the largest integer that divides all of them evenly. For example, $\text{gcd}(30, 45, 105) = 15$. Given a list of numbers, your job is to write a program that finds the largest integer that divides every integer in the list.

Input

The first line will contain the number of test cases T .

The first line of each test case contains a single integer N , the number of numbers in this test case.

The second line of each test case contains N integers separated by spaces on a single line.

Output

For each test case, output the largest integer that divides all of the numbers given.

Constraints

1 $\leq T \leq 10$

2 $\leq N \leq 20$

1 \leq each number $\leq 1,000,000$

Example Input File

```
3
2
6 10
3
45 30 105
4
2 3 4 5
```

Example Output to Screen

```
2
15
1
```